CENTRAL PNEUMATIC®

LVLP SPRAY GUN

Model 92841

SET UP AND OPERATING INSTRUCTIONS

Visit our website at: http://www.harborfreight.com

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

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For technical questions or replacement parts, please call 1-800-444-3353.

Manual Revised 09k

SPECIFICATIONS

Operating Pressure	20 - 45 PSI, 50 PSI max.
Continuous Air Consumption	5.5 to 9 SCFM
Recommended Hose Diameter	1/4" I.D.
Net Weight	1.7 lb.
Body Construction	Cast Aluminum with Aluminum Cup
Valve Construction	Zinc Plated Brass
Air Inlet	1/4" NPS
Overall Dimensions	10-1/2"H x 7-1/2"L x 4-1/4"W

NOTE: This is a LVLP (Low Volume Low Pressure) spray gun.

SAVE THIS MANUAL

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

SAFETY WARNINGS AND PRECAUTIONS

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this tool!

1. **Keep work area clean**. Cluttered areas invite injuries.
2. **Observe work area conditions**. Do not use this sprayer in damp or wet locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered compressors in the presence of flammable gases or liquids.
3. **Keep children away**. Children must never be allowed in the work area. Do not let them handle air lines, machines, tools, or extension cords.
4. **Store idle equipment**. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job**. Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Dress properly**. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
7. **Use eye protection**. Always wear ANSI approved impact safety goggles. Wear an ANSI approved dust mask and respirator when working around paint spray, chemical dusts and mists.
8. **Do not overreach**. Keep proper footing and balance at all times. Do not reach over or across running machines.
9. **Maintain tools with care**. Keep tools maintained and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool

cords periodically and, if damaged, have them repaired by a qualified technician. The handle must be kept clean, dry, and free from oil and grease at all times.

10. **Disconnect power**. Disconnect tool from air supply when not in use.

11. **Remove adjusting keys and wrenches**. Check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.

12. **Stay alert**. Watch what you are doing, use common sense. Do not operate any tool when you are tired.

13. **Check for damaged parts**. Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if the trigger does not operate properly.

14. **Replacement parts and accessories**. When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.

15. **Do not operate tool if under the influence of alcohol or drugs**. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.

16. **WARNING: The brass components of this product contain lead, a chemical known to the State of California to cause birth defects (or other reproductive harm). (California Health & Safety code § 25249.5, *et seq.*)**

17. **Maintenance**. For your safety, service and maintenance should be performed regularly by a qualified technician.

18. **The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.**

Special Warnings About Paint Sprayers

Health and Safety Hazard	Nature and Cause of Hazard	Prevention of Hazard
Risk of Explosion or Fire from Flammable Materials	Spraying paints, solvents and thinners mixes them with oxygen in the air. This creates a more explosive mixture than these materials in their fluid form. Rapid fires and explosions of these mixtures can cause death or severe injury as well as significant property damage.	Never spray materials near fire, flame, electrical spark or any ignition source. Never smoke when spraying or in the vicinity of spraying. Never smoke in the work area. Always provide good ventilation during and after spraying to eliminate any enclosed explosive atmosphere.
Risk of Fire or Explosion from Materials Incompatible with Aluminum.	Certain solvents, including 1,1,1-Trichloroethane and Methylene Chloride can chemically react with the Aluminum used in this spray equipment. This can cause an explosion which may result in death or serious personal or property injury. Other chemicals ,when mixed, may cause unpredictable results.	Inform yourself by reading the information provided with each solvent before introducing to the sprayer. Never spray the solvents named at left in this sprayer which contains Aluminum. Never use these materials for cleaning equipment. Never use any solvent if in doubt of its composition or compatibility with Aluminum, other materials or this spraying equipment.
Inhalation Hazard.	Inhaling solvents or sprayed materials may cause severe injury to the lungs or body, due to their chemical make up or the fact that they may coat the interior of the lungs.	Use an ANSI approved ventilator or face mask. NOTE: Some face masks, such as paper filters provide only limited protection against harmful sprays and fumes. Consult safety documents provided with the materials you are spraying or an industrial safety expert when determining the appropriate respiratory protection.
Risk of Ejected Objects or Sonic Injury.	Many components of this tool and any air pressure powered tool are under significant air pressure, even after the air supply is disconnected. A significant risk of injury caused by ejected components or materials diverted by the stream of air pressure exists. High pressure air escaping suddenly may cause hearing injury.	Before doing any service to the sprayer, disconnect it from the air supply. Then depressurize the sprayer by pointing it in a safe direction and holding the trigger until all pressure is released. Never point the nozzle toward any person or animal. Always wear ANSI approved safety glasses or goggles when using or servicing this tool. Always wear hearing protection when using or servicing this tool or any air pressure equipment.

UNPACKING

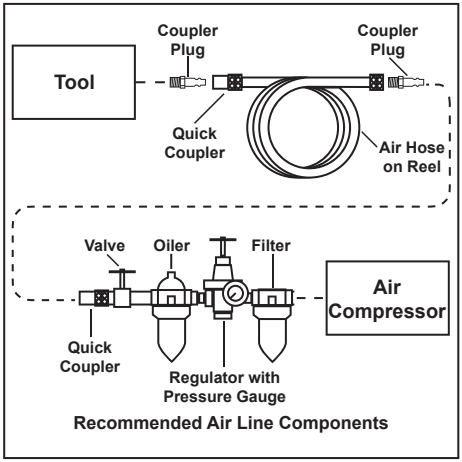
When unpacking, check to make sure the following parts are included.

LVLP Spray Gun
Paint Cup

If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.

ASSEMBLY

First, prepare your air supply.

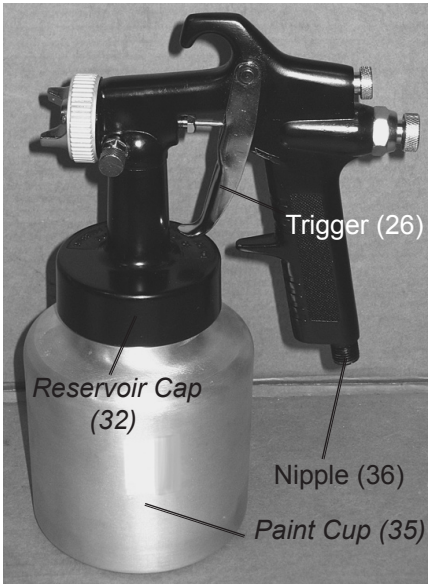


Recommended Air Line Components

1. This tool requires up to 45 PSI and up to 9 SCFM. Provide yourself with a compressed air supply which will meet these requirements. Air compressors and related supplies are available from Harbor Freight Tools.

2. For best results, arrange your compressed air supply to include a filter and regulator as indicated in the schematic diagram above. The addition of quick connect air valves, reel and other features will enhance your air supply.

3. Attach your air hose (not supplied) to the Spray Gun at the Nipple (36), at the base of the handle. At your option, you may first attach a quick connect valve (not supplied) to the Nipple (36) to attach with your air hose.



4. Attach the Paint Cup (35) to Reservoir Cap (32) on the bottom of the Spray Gun, as shown in the photo.

OPERATION

1. Prepare the work piece to be painted according to paint manufacturer's directions. Prepare your paint mixture according to paint manufacturer's directions.

NOTE: In most cases, paint must be thinned for proper spraying. Be sure to use a thinner recommended by the paint manufacturer.

2. Fill the Paint Cup (35) no more than 2/3 full with your paint mixture. Screw the Reservoir into the Reservoir Cap (32) being sure the Reservoir Seal (33) is in place.

3. Turn on your air compressor, and adjust the regulator to the recommended pressure (20 - 45 PSI).

4. **IMPORTANT:** Before applying paint to your work piece, test spray a piece of scrap material. In most cases both the paint mixture and spray pattern will have to be adjusted for best results.

5. To spray, squeeze the Trigger (26), as you move the Sprayer past the work material. Release the Trigger (26) at the end of each pass. Repeat until you have proper paint coverage of the work piece.

6. When you have completed painting your project, disconnect the Sprayer from its air pressure source and immediately clean following the directions in the Maintenance section on page 8.

Painting Tips

Successful spray painting is a skill which requires knowledge of your equipment, familiarity with your paint materials and experience. Differences in paints, work materials and environmental conditions make every painting task unique. For best results, practice with your painting mixture on a scrap piece before beginning to paint your work material.

It is critical that the surface be properly prepared before painting. It will be difficult to achieve a satisfactory painted surface if the original surface is dirty, rough or wet.

Paint Mixture

Each paint mixture will vary. You may use solvent or water based paints. Each of these causes a different paint viscosity, and has a different flow rate and drying time. High viscosity is thick, like syrup. Low viscosity is thin, like water.

The purpose of the solvent is to make the paint liquid so it can be applied. Once applied, the solvent evaporates, leaving the pigment and its binders in place. The solvent is also used as a clean up medium. Paint mixtures which are to be sprayed are generally less viscous (thinner) than mixtures which are to be applied with a brush. Thus you will most often have to add extra solvent to a paint which is to be sprayed.

When paint is sprayed, it is broken into tiny droplets, then blown by high-pressure air onto the surface. During this spraying process, the surface of each paint droplet will begin to dry. When it hits the work material, the droplet must liquefy again, and mix with the droplets hitting alongside it. Ideally, these droplets will mix evenly forming a smooth surface.

If the paint mixture is too thick, the droplets will not form a smooth layer, and the resulting surface can be described as "pebbly" or "orange peel". If the paint mixture is too thin, the paint will run, forming long drips before they are thick enough to form a satisfactory coat. Vertical

surfaces are more prone to “run” than horizontal surfaces due to the effect of gravity.

Applying the Paint

In most cases, it is best to move the paint spray from side to side, overlapping the previous paint. In this way you will gradually build up the paint layer without leaving any obvious edges.

To paint in this way, the spray pattern should be set to vertical.

It is important to prevent excess paint at the beginning and end of each stroke. Holding the sprayer away from the work piece, squeeze the trigger to start the spray. Then move the spray gun in to within 14-16 inches of the work piece. Move the sprayer smoothly across the work piece, keeping a consistent distance. At the end of each stroke, pull the sprayer away from the work piece as you release the trigger.

As you work, carefully observe the way the paint accumulates on the work surface. It is more important to maintain a good paint surface than to form an opaque (thick) paint coat. You can always apply a second coat to get the coverage you want. If the surface is ruined, however, you will have to start over with surface preparation.

If the surface does not smooth out in a few seconds after applying the paint, your paint mixture is probably too thick. Thin your paint slightly and test on a piece of scrap material. If the paint goes on very thin and threatens to run, stop spraying immediately. Add more paint to your mixture to thicken the paint. Test on a piece of scrap material before resuming work.

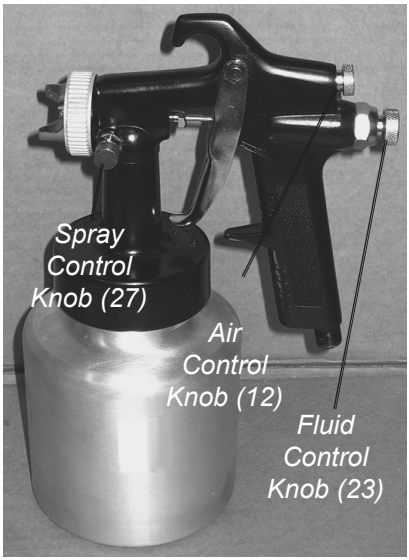
HOW TO ADJUST PAINT FLOW AND AIR PRESSURE

To adjust the spray pattern, loosen the Nozzle Lock Ring (1) by turning it counterclockwise, then rotate the Air Nozzle (2), then retighten the Nozzle Lock Ring (1). For a vertical spray pattern, the “ears” of the Air Nozzle (2) should be horizontal. For a horizontal pattern, the “ears” should be vertical. In other words, the position of the Air Nozzle and the spray pattern are opposite.

Further adjustment of the spray pattern may be made by adjusting the Spray Control Knob (27).

To control the amount of paint mixture being sprayed, adjust the Fluid Valve Control Knob (23). Turning the Knob clockwise will reduce the amount of paint, turning it counterclockwise will increase the amount of paint available.

To control the amount of air pressure passing through the Sprayer, adjust the Air Control Knob (12). Turning the Knob clockwise will reduce the air pressure, and turning it counterclockwise will increase the air pressure. **CAUTION:** Do not overtighten the Knob, as this will cut off the air supply, and may damage the Air Control Seal (10).



Maintenance

After each use, thoroughly clean the spray gun.

1. Empty the Paint Reservoir of paint, and wipe it out with a clean rag.
2. Fill the Paint Reservoir about halfway with the solvent which is appropriate for the paint you have sprayed.
3. Spray the solvent into an appropriate receptacle for proper disposal. Continue to spray until paint in the interior of the Spray Gun is ejected and the solvent spray is clear.
4. Using a clean rag wetted with solvent, wipe off the Spray Gun to remove paint from the exterior.
5. Store your paint sprayer in a clean dry place.

Troubleshooting

Problem	Possible Causes	Suggested Repairs
Paint breaking, spitting, fluttering or irregular spray	a) Air Nozzle cracked or worn. b) Leak at attachment or seal c) Needle packing worn out d) Insufficient paint in cup e) Vent hole in paint container clogged	a) Replace b) Clean threads and seal and tighten c) Clean, repair or replace packing d) Add more paint to cup e) Clean out vent hole
One-sided paint pattern	a) One of the vent holes in the Air Nozzle is clogged	a) Clean the hole using a solvent
Small spray area	a) Bore of Air Nozzle is partially clogged	a) Clean Air Nozzle using solvent
Split Spray Pattern	a) Air pressure too high	a) Reduce air pressure using the regulator in your air pressure system, or by turning the Air Valve Control Knob clockwise
Paint spatters, does not spray evenly	a) Paint mixture is too thick b) Insufficient air pressure c) Too much paint mixture d) Dried paint in Air Nozzle	a) Thin the paint mixture b) Increase the air pressure using the regulator or the Air Valve Control Knob. Do not exceed 70 psi. c) Reduce the amount of paint flowing into the sprayer by turning the Fluid Valve Control Knob clockwise d) Clean the Air Nozzle using solvent
Not enough air pressure to spray the paint	a) Air Needle partially closed b) Dried material in Air Ball Valve or Air Nozzle c) Insufficient air supply	a) Open Air Ball Valve by turning the air Valve Control Knob counterclockwise b) Clean the dirty part in solvent c) Adjust the regulator in your system, or increase air pressure. DO NOT INCREASE PRESSURE BEYOND 50 psi MAX.
Inadequate coverage. Paint “fogs” on the workpiece	Air pressure too high for the viscosity of the paint mixture	Reduce the air pressure or add more paint to the mixture to increase viscosity
Material leaking from Paint Cup Nipple	a) Dried material is in threads b) Nipple is not tight	a) Clean threads using solvent b) Tighten nipple
Paint leaks from nozzle when trigger is operated	a) Worn Fluid Needle b) Dried paint in Air Nozzle c) Loose or worn Needle Packing	a) Replace Fluid Needle b) Clean Air Nozzle in solvent c) Tighten or replace Needle Packing

Parts List

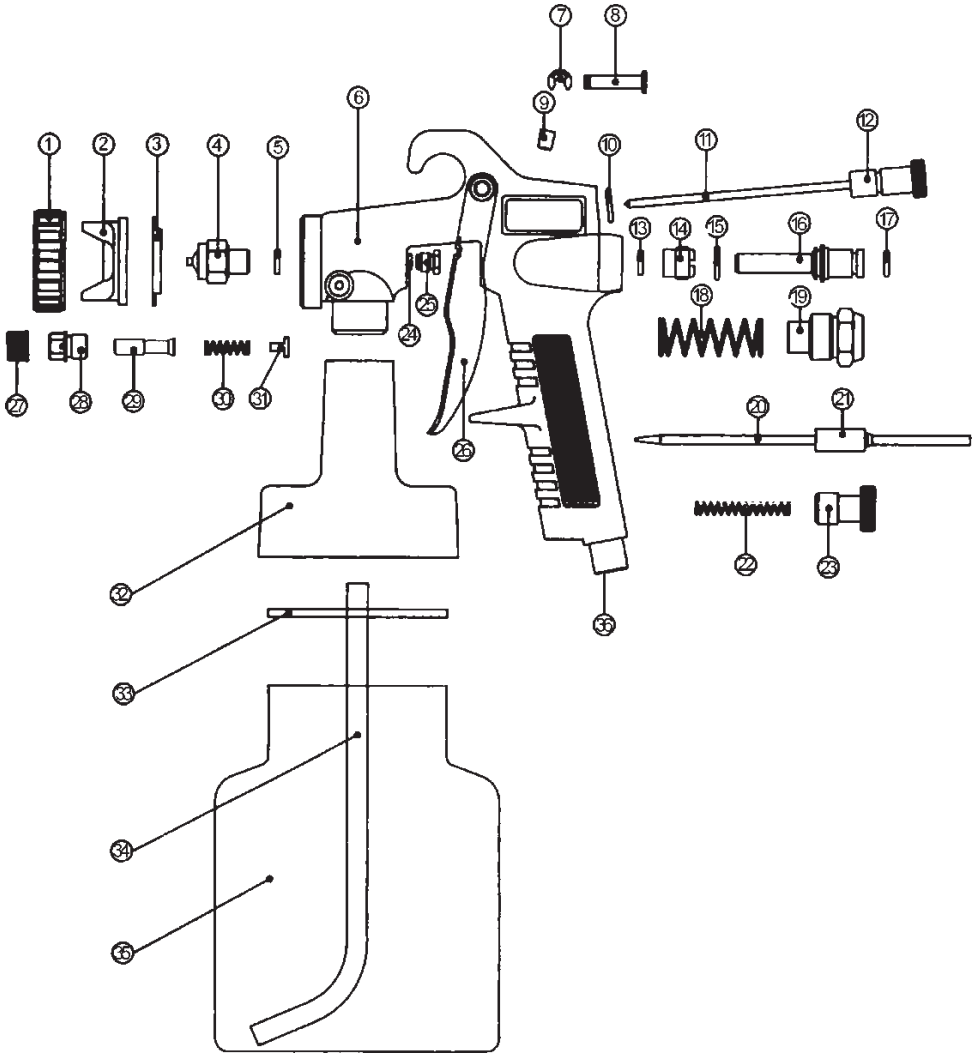
Part	Description
1	Nozzle Lock Ring
2	Air Nozzle
3	Nozzle Inner Ring
4	Spray Nozzle
5	Nozzle Washer
6	Housing
7	Trigger Pin Snap Ring
8	Trigger Pin
9	Trigger Lock
10	Air Control Seal
11	Air Control Needle Valve
12	Air Control Knob
13	Air Control Valve Seal
14	Air Control Valve Seat
15	Air Control Valve Seal
16	Air Control Valve Body
17	Air Control Seal Ring
18	Air Control Valve Spring

Part	Description
19	Air Control Lock Nut
20	Fluid Needle Valve
21	Fluid Needle Valve Mount
22	Fluid Needle Valve Spring
23	Fluid Needle Valve Adjuster
24	Fluid Control Knob
25	Nozzle Packing Fitting
26	Trigger
27	Spray Control Knob
28	Spray Control Seat
29	Spray Control Pin
30	Spray Control Spring
31	Spray Control Cap
32	Reservoir Cap
33	Reservoir Seal
34	Siphon Tube
35	Paint Cup
36	Air Intake Nipple

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Assembly Drawing



NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.